



XX Curtis RAJ;  
PI  
DR WPI: 2000-387790/33.  
DR P-PSDB; AAY97358.  
XX  
PT New capsatin/vanilloid receptor polynucleotides and polypeptides, used  
PT to modulate pain signalling mechanisms  
XX  
PS Claim 1; Fig 2; 183pp: English.  
XX  
CC The present sequence is the coding sequence for human  
CC capsatin/vanilloid receptor VR-2, which is involved in pain signalling.  
CC The sequence was isolated by searching a heart library for genes  
CC encoding novel receptors of the capsatin/vanilloid family, and has been  
CC shown to be located at chromosome 17p11-12. This region has been  
CC associated with myasthenia gravis, Smith-Magenis syndrome, CORD5,  
CC Conger dystrophy, choroidal dystrophy, central areolar and retinal  
CC cone dystrophy, and it is possible that the protein may be used to treat  
CC or diagnose these disorders. In addition, the gene, protein and its  
CC antibodies can be used to diagnose and treat hyperalgesia, inflammation,  
CC infection, ischaemia, joint pain, tooth pain, headaches, pain associated  
CC with surgery or neuropathic pain, possibly via the use of gene therapy.  
XX  
SQ Sequence 2809 BP; 601 A; 825 C; 798 G; 585 T; 0 other;

Query Match 100.0%; Score 2809; DB 21; Length 2809;  
Best Local Similarity 100.0%; Pred. No. 0;  
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DB 601 aatgcggtctcccgagggttcccccagagatctggtgacattccagagtaactgagcaag 660

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DB 661 accagcaagtacttaccacgactctggaatacacagaggtctccacagtgtaaggtgccg 720  
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XX	AAZ22829				
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XX					
DE	Human vanilloid receptor-like cation channel (hVRCC) cDNA.				
XX					
DE	Vanilloid; capsaicin; neuron; selective; calcium; cation; receptor; pain;				
KW	Inflammation; brain disease; cancer; autoimmune disorder; ds.				
XX					
OS	Homo sapiens.				
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PE	10-MAR-1999;	99WO-EP01550.			
XX					
PR	11-MAR-1998;	98EP-0400565.			
XX					
PA	(SNFI ) SANOFI-SYNTHELABO.				
XX					
PI	Parisetti M, Renard S;				
XX					
DR	WPI; 1999-571722/48.				
XX					
DR	P-PSDB; AAY42308.				
XX					
PT	New receptor-like channel polypeptide and polynucleotide useful for				
XX	prevention and treatment of cancer, autoimmune disease, brain disease				
PT	and ulcers -				
XX					
PS	Claim 5; Page 14; 50pp; English.				
XX					
CC	This sequence represents a human vanilloid receptor-like cation channel				
CC	(hVRCC) cDNA. This channel is activated by vanilloids such as capsaicin				
CC	and resiniferatoxin, and is expressed in a variety of tissues,				
CC	particularly in nervous tissue such as the amygdala, substantia nigra,				
CC	thalamus, dorsal root ganglia and spinal cord. Vanilloids are natural				
CC	compounds which are known to trigger cation permeability in the				
CC	peripheral neurons involved in transmission of noxious stimuli (e.g.,				
CC	mechanical, chemical or thermal). A recently discovered rat				
CC	vanilloid-gated cation channel, which is highly expressed in dorsal root				
CC	ganglia, has six putative transmembrane domains, giving it significant				
CC	structural homology with "store-operated" calcium channels, and is highly				
CC	selective for calcium ions. hVRCC and nucleotides encoding it can be used				
CC	in prevention, diagnosis or therapy of disorders that may be associated				
CC	with an excess or deficiency of hVRCC. Disorders detected or treated				
CC	using hVRCC proteins, nucleotides or antagonists include chronic				
CC	inflammation, acute and chronic pain, brain diseases, abnormal				
CC	proliferation and cancer, ulcers, autoimmune diseases, control of viscera				
CC	inverted by the dorsal root ganglia neurons, to mimic or antagonise				
CC	effect of endogenous neurotransmitters and hormones, and to inhibit graft				
CC					

rejection by promoting immunosuppression. Nucleotide sequences encoding  
 CC hvRC are also useful for chromosome localisation.  
 CC  
 XX  
 SQ Sequence 2783 BP; 578 A; 824 C; 796 G; 585 T; 0 other;

Query Match 98.5%; Score 2766.8; DB 20; Length 2783;  
 Best Local Similarity 99.8%; Pred. No. 0;  
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Db 2758 actaactcaaaaaaaaaaaaaaa 2783

RESULT 3
ID AAA14874 standard; DNA: 2765 BP.
XX
AC AAA14874;
XX
DT 08-AUG-2000 (first entry)
XX
DE DNA encoding a vanilloid receptor-like (VR-L) protein.
XX
KW Cation channel protein; vanilloid receptor-like 1 protein; VR-L;
KW noxious heat; pain; inflammation; tissue damage; nociception;
KW gene therapy; sensory neuron; immune system; analgesic; immunomodulatory;
KW neuromodulatory; ss.
XX
OS Homo sapiens.
XX
FH Key location/Qualifiers
FT CDS 358..2652
FT /*tag= a
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FT FT /product= "vanilloid receptor-like (VR-L) protein"
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FT FT /transl_except= (pos: 2035..2037, aa: Thr)
FT FT /transl_except= (pos: 2355..2358, aa: Xaa)
FT FT /note= "Xaa is an unspecified amino acid"
XX
PN W0200022121-A2.
XX
PD 20-APR-2000.
XX
PF 08-OCT-1999; 99WO-G803348.
XX
PR 09-OCT-1998; 98GB-0022124.
XX
PA (UNLO ) UNIV COLLEGE LONDON.
XX
PI Garcia R, Wood JN, England S;
XX
DR WPI: 2000-317978/27.
DR P-PSDB: AAY84834.
XX
PT Novel non-selective cation channel protein and nucleotides useful as
PT screening agents and in gene therapy of disorders associated with
PT sensory neurons and leucocytes such as pain, autoimmune disorders and
PT leukemia
XX
PS Claim 5; Fig 3A; 55pp; English.
XX
CC The present sequence encodes a non-selective cation channel protein,
CC designated vanilloid receptor-like 1 (VR-L). The protein is obtained
CC from human T lymphocytes. The VR-L protein is activated by noxious heat,
CC and is not capsaicin sensitive. VR-L is expressed in sensory neurons,
CC and is likely to play a role in mediating the pain and inflammation
CC accompanying tissue damage (nociception). The VR-L polynucleotide is
CC useful for influencing the electrophysiological and/or pharmacological
CC properties of a cell, and is also useful in the gene therapy treatment
CC of disorders associated with sensory neurons and/or cells of the immune
CC system and also for the preparation of a medicament for use in gene
CC therapy. The VR-L polynucleotides and polypeptides are useful for
CC identifying a substance with ion-channel modulating activity (such as
CC analgesics), or compounds which affect nociception, immunomodulatory
CC agents, neuromodulatory agents.
XX
SQ Sequence 2765 BP; 560 A; 821 C; 792 G; 589 T; 3 other;

Query Match 96.9%; Score 2720.6; DB 21; Length 2765;
Best Local Similarity 99.2%; Pred. No. 0;
Matches 2743; Conservative 0; Mismatches 22; Indels 1; Gaps 1;
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DT	19-JAN-1999 (first entry)		
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KW	Human; secreted protein; fusion protein; gene therapy; protein therapy;		
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KW	developmental abnormality; foetal deficiency; blood; allergy; renal; ds;		
KW	immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;		
KW	inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;		
KW	cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;		
KW	osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;		
KW	endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.		
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PN	W09839448-A2.		
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PD	11-SEP-1998.		
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PE	06-MAR-1998; 98MO-US04493.		
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Oy 2521 ctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2580
Db 2486 ctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2545
Oy 2581 tccctcccaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaagga 2640
Db 2546 tccctcccaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaaggaagga 2605
Oy 2641 ctccagttcaactatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2700
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Db 2606 ctccagttcaactatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2665
Oy 2701 tccaaccacatctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2760
Db 2666 tccaaccacatctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2725
Oy 2761 actaactcaaaaaaaactgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2809
Db 2726 actaactcaaaaaaaactgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2774

RESULT 5
AAC60297
ID AAC60297 standard; DNA; 2469 BP.
XX
AC AAC60297;
XX
DT 14-FEB-2001 (first entry)
XX
DE Human vanilloid receptor like receptor DNA.
XX
KW VR-L; vanilloid receptor-like receptor; pain; infection; allergy;
KW mechanical injury; lymphoid tissue; human; ds.
XX
OS Homo sapiens.
XX
PN GB2346882-A.
XX
PD 23-AUG-2000.
XX
PE 02-DEC-1999; 99GB-0028566.
XX
PR 08-DEC-1998; 98GB-0027016.
XX
PA (MERIT ) MERCK SHARP & DOHME LTD.
XX
PI Bonnert TP;
XX
DR WPI: 2001-064250/08.
DR P-PSDB: AAB35622.
XX
PT New polynucleotide encoding human vanilloid receptor-like receptor for
PT diagnosing and treating pain, infections, allergies, and cancers
XX
PS Claim 2; Fig 1; 36pp; English.
XX
CC The present invention relates to the human vanilloid receptor-like
CC receptor. This receptor may be used for diagnosing or treating
CC conditions associated with altered vanilloid receptor-like (VR-L)
CC receptor expression. It may also be used to treat abnormal conditions
CC associated with pain. Conditions or diseases that can be diagnosed or
CC treated include viral, bacterial and fungal infections, allergic
CC responses, mechanical injury associated with trauma, hereditary
CC diseases, lymphoma or carcinoma, or other conditions which activate
CC the genes of the lymphoid tissues.
XX
SO Sequence 2469 BP; 510 A; 724 C; 710 G; 525 T; 0 other;

Query Match 87.7%; Score 2462.2; DB 22; Length 2469;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2464; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Oy 267 caaacacgagcgagcagctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 326
Db 3 cgaagccgagcagcagctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 62
Oy 327 tcccgctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 386
Db 63 tcccgctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 122
Oy 387 ttccaggttgagacatagatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 446
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Db 123 ttcaaggttggagacataagatgagggccaagaagatgctctgtaggcgagacagga 182  
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Db 183 gctggatttggagagcggtgctgcctcccatgtagtcaagttccaaaggcgaagccgaa 242  
QY 507 attgcgcccctcagataaagagttcaacctcaactccgaaaggaagcagtgccagtcac 566  
Db 243 attgcgcccctcagataaagagttcaacctcaactccgaaaggaagcagtgccagtcac 302  
QY 567 ggaatccaacacgaatttgacccgagatctggtctcttcaatgcgtctcccgagggtctcc 626  
Db 303 ggaatccaacacgaatttgacccgagatctggtctcttcaatgcgtctcccgagggtctcc 362  
QY 627 ggaatccaacacgaatttgacccgagatctggtctcttcaatgcgtctcccgagggtctcc 686  
Db 363 ggaatccaacacgaatttgacccgagatctggtctcttcaatgcgtctcccgagggtctcc 422  
QY 687 atacaagagggctccacaaggtgaagacgtgctgtagaagcgtgctgtagaacttaagga 746  
Db 423 atacaagagggctccacaaggtgaagacgtgctgtagaagcgtgctgtagaacttaagga 482  
QY 747 cgaagatcaatgctgtagatcttgcaactgtgcagatcgacagaggaactcttgcaactctca 806  
Db 483 cgaagatcaatgctgtagatcttgcaactgtgcagatcgacagaggaactcttgcaactctca 542  
QY 807 gccccgtgtaaatgcccagtgtagacagatgactataccgagggcacagcgctctgcaacat 866  
Db 543 gccccgtgtaaatgcccagtgtagacagatgactataccgagggcacagcgctctgcaacat 602  
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OY 2607 tgcctcagagaaacatctgtcccgctccagctctccagctccagctgaatggccagatg 2666  
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Db 2343 tgcctcagagaaacatctgtcccgctccagctctccagctccagctgaatggccagatg 2402  
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Db 2403 cagcagagagccagagacagagagatcttcacacacatctgtcgtcctggg 2462  
OY 2727 tcccaagt 2733  
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Db 2463 tcccaagt 2469  
  
RESULT 6  
AAV59807  
ID AAV59807 standard; DNA: 2860 BP.  
XX  
AC AAV59807;  
XX  
DT 19-JAN-1999 (first entry)  
XX  
DE Human secreted protein gene 181 clone HAFU18.  
XX  
KW Human; secreted protein; fusion protein; gene therapy; protein therapy;  
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;  
KW developmental abnormality; foetal deficiency; blood; allergy; renal; ds;  
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;  
KW inflammation; ischemic shock; Alzheimer's disease; restenosis; AIDS;  
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;  
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;  
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.  
XX  
OS Homo sapiens.  
XX  
PN WC9839448-A2.  
PD 11-SEP-1998.  
XX  
PF 06-MAR-1998; 98MO-US04493.  
XX  
PR 02-OCT-1997; 97US-0061060.  
PR 07-MAR-1997; 97US-0038621.  
PR 07-MAR-1997; 97US-0040161.  
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PR 07-MAR-1997; 97US-0040163.  
PR 07-MAR-1997; 97US-0040333.  
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PR 07-MAR-1997; 97US-0040336.  
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PR 23-MAY-1997; 97US-0047632.  
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PR 06-JUN-1997; 97US-0048964.  
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PR 08-JUL-1997; 97US-0051926.  
PR 16-JUL-1997; 97US-0052874.  
PR 18-AUG-1997; 97US-0055724.  
PR 22-AUG-1997; 97US-0056610.  
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PR 22-AUG-1997; 97US-0056910.  
PR 22-AUG-1997; 97US-0056911.  
PR 05-SEP-1997; 97US-0057650.  
PR 05-SEP-1997; 97US-0057669.  
PR 05-SEP-1997; 97US-0057761.  
PR 12-SEP-1997; 97US-0058785.  
XX  
PA (HUMA-) HUMAN GENOME SCI INC.  
XX  
PI Bednarik DP, Brewer LA, Carter KC, Duan R, Edner R, Endress GA,  
PI Feng P, Ferris AM, Fischer CL, Florence KA, Greene JM, Hu JS,  
PI Kyaw H, Lafleur DM, Li Y, Moore PA, Ni J, Olsen HS, Rosen CA,  
PI Ruben SM, Shi Y, Soppet DR, Young PE, Yu GL, Zeng Z;



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2742 gtggcaaatatataatttctactaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 2799
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Db 2750 gtggcaaatatataatttctactaactcaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 2807
RESULT 7
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ID AAx87492 standard; cDNA; 2380 BP.
XX
AAx87492:
AC
XX
08-OCT-1999 (first entry)
DE
XX
Human vanilloid receptor-related polypeptide 1 (VRRP-1) cDNA.
XX
XX
Vanilloid receptor-related polypeptide 1; VRRP-1; VR2;
KW capsaicin receptor; VR1; human; vanilloid; analgesic; pain;
KW inflammation; therapy; diagnosis; ss.
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Homo sapiens.
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Key Location/Qualifiers
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PI Brake AJ, Caterina M, Julius DJ;
XX
WP1: 1999-469113/39.
XX
P-PSDB; AAY06559.
XX
PT New isolated capsaicin receptor polypeptide and related nucleic acid
PT - useful for detecting vanilloid compounds, identifying modulators,
PT and in diagnosis or treatment of e.g. pain and inflammation
XX
XX
Claim 8; Page 107-110; 120pp; English.
PS
XX
This is the nucleotide sequence of cDNA coding for human vanilloid
CC receptor-related polypeptide 1 (VRRP-1 or VR2). The cDNA was
CC isolated from a CCR-CEM cell cDNA. VRRP-1 (AAY06559) is an example
CC of a capsaicin receptor-related polypeptide of the invention. It
CC is not activated by capsaicin or heat, but may interact with the
CC novel capsaicin receptor VR1 (see AAY06558). The invention provides
CC vanilloid receptor polypeptides and polynucleotides, including
CC capsaicin receptor-related polypeptides and polynucleotides, as well
CC as expression vectors, host cells and transgenic animals. It also
CC provides a method of using such receptors to identify vanilloid
CC compounds in natural products or to screen candidate compounds that
CC modulate capsaicin receptor function for use as analgesics (vanilloid
CC analogues, therapeutic antibodies, antisense oligonucleotides,
CC capsaicin receptor-encoding polynucleotides for gene therapy),
CC flavour-enhancing agents, etc. Capsaicin receptor-related
CC polypeptides and specific antibodies can also be used for the
CC diagnosis and treatment of human disease and pain. Polynucleotides
CC can be used as probes to determine the structure, function, location
CC and expression of capsaicin receptor, receptor subtypes and capsaicin
CC receptor-related polypeptides in mammals (including humans) and to
CC investigate associations between disease states or clinical disorders
CC (particularly those involving acute and chronic pain or inflammation)
CC and defects or alterations in receptor structure, expression or
CC function.
XX
Sequence 2380 BP; 491 A; 698 C; 678 G; 513 T; 0 other;
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Query Match

84.7%; Score 2378.4; DB 20; Length 2380;



QY 2503 gagcagacgctgctacgctgtgtgagaccgcgcacaggcaggctgtccctcgaacttc 2562  
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Db 2161 gagagagcgcgctacgctgtgtgagaccgcgcacaggcaggctgtccctcgaacttc 2220  
2563 gagacccctgtcctgtgcttccctcccaaggagatgagatgtgctctgaggaac 2622  
|||||  
Db 2221 gagacccctgtcctgtgcttccctcccaaggagatgagatgtgctctgaggaac 2280  
2623 tatgtccctcgcacgctcctcgaactgacgtatgagccagatgacagagagccagag 2682  
|||||  
Db 2281 tatgtccctcgcacgctcctcgaactgacgtatgagccagatgacagagagccagag 2340  
2683 gagcagacagagatcttcccaacacatctgctgctct 2722  
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Db 2341 gacagagcagagatcttcccaacacatctgctgctct 2380

RESULT 8  
AAZ07114  
ID AAZ07114 standard; cDNA; 2351 BP.  
XX  
AC AAZ07114;  
XX  
08-OCT-1999 (first entry)  
XX  
Human vanilloid receptor homologue VANILREP2 encoding cDNA.  
XX  
Human: vanilloid receptor homologue; VANILREP2; polymorphic variant;  
KW PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;  
KW rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia;  
KW neurodegeneration; stroke; incontinence; inflammatory disorder; ss.  
XX  
OS Homo sapiens.  
XX  
Key Location/Qualifiers  
FT CDS 5..2299  
FT /tag- a  
FT /product= "VANILREP2"  
FT /note= "vanilloid receptor homologue"  
XX  
PN MO9937765-A1.  
XX  
PD 29-JUL-1999.  
XX  
PF 25-JAN-1999; 99MO-EP00420.  
XX  
PR 20-JAN-1999; 99GB-0001209.  
PR 27-JAN-1998; 98EP-0300549.  
PR 26-OCT-1998; 98GB-0023421.  
XX  
PA (SMIK ) SMITHKLINE BEECHAM PLC.  
XX  
PI Davis JB, Duckworth DM, Hayes PD;  
XX  
DR WPI; 1999-479049/40.  
XX  
DR P-PSDB; AAY29469.  
XX  
PT New human vanilloid receptor homologues (VANILREP2)  
XX  
PS Claim 9; Page 29-30; 47pp; English.  
XX  
CC The present sequence encodes a human vanilloid receptor homologue,  
CC designated VANILREP2. VANILREP2 can be used to diagnose disease or  
CC susceptibility to disease related to expression or activity of  
CC VANILREP2 polypeptides. VANILREP2 may be used to treat diseases  
CC including pain, (for example chronic, neuropathic, postoperative,  
CC rheumatoid arthritis), neuralgia, algesia, nerve injury, ischaemia,  
CC neurodegeneration, stroke, incontinence, and inflammatory disorders.  
XX  
SQ Sequence 2351 BP; 486 A; 684 C; 676 G; 505 T; 0 other;

Query Match 83.6%; Score 2347.8; DB 20; Length 2351;  
Best Local Similarity 99.9%; Pred. No. 0;  
Matches 2349; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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417 agaagatgagctctgagcgagcagaggaagaagctgattttggagcgagctcccat 476  
Db 61 agaagatgagctctgagcgagcagaggaagaagctgattttggagcgagctcccat 120  
477 ggaatcacagttccagagcgagacccgnaattccgcccctcagataagagttcaacctaa 536  
Db 121 ggaatcacagttccagagcgagacccgnaattccgcccctcagataagagttcaacctaa 180  
537 ctaccgaaagggaacaggtgtcccaatcagccgattccaaacagatttgaaccgagtcggt 596  
Db 181 ctaccgaaagggaacaggtgtcccaatcagccgattccaaacagatttgaaccgagtcggt 240  
597 ctcaatgcggtctcccgagggtgtcccgagagatctgctgacttccagagttacctgag 656  
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657 caagacagcaagtaacctcaccgactcggaatacacagagggctccacaggttaagcgtg 716  
Db 301 caagacagcaagtaacctcaccgactcggaatacacagagggctccacaggttaagcgtg 360  
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Db 361 cctgatatgaagctgtgtctgaaccttaagagcgagttcaatgtcctgcattctgcacgtct 420  
777 gcaagatcgacagagacgtctgcaatctcctcagccctgtgaattgcccagttgacagatga 836  
Db 421 gcaagatcgacagagacgtctgcaatctcctcagccctgtgaattgcccagttgacagatga 480  
837 ctattaccgagagccacagcgctctgcacatcgcattgagaagagagctctgcagttgt 896  
Db 481 ctattaccgagagccacagcgctctgcacatcgcattgagaagagagctctgcagttgt 540  
897 gaagctcctgtgtgagaaatgaggccaatgtgacatgcccgggctgaggcgtcttcca 956  
Db 541 gaagctcctgtgtgagaaatgaggccaatgtgacatgcccgggctgaggcgtcttcca 600  
957 gaagggccaaaggagactgtcttatttctggtgagctaacctctcttggcgcttgac 1016  
Db 601 gaagggccaaaggagactgtcttatttctggtgagctaacctctcttggcgcttgac 660  
1017 caagcagtgaggatgtgttaagctactcctctgagagaaccacacagcccgccagctgca 1076  
Db 661 caagcagtgaggatgtgttaagctactcctctgagagaaccacacagcccgccagctgca 720  
1077 ggcacatgactcccaaggcacaacagttcctgcatgctcctagtatgattctggaacatc 1136  
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Db 781 agctgagaacattgacatggtgagcagcagatgtatgattgggtgcttccaaagtggggccg 840  
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Db 841 cctctgcctlacgctgacagcttgagagcatcgcgaacctgagagatcacaagctctgaa 900  
1257 gctggcgcgcaaggaggaagatcgagatttcaagcacatcctgcagcgaggtttc 1316  
Db 901 gctggcgcgcaaggaggaagatcgagatttcaagcacatcctgcagcgaggtttc 960  
1317 aggactgagcaaccttccgaaagttcacacgagttgtgtcattgggctgtccggggttc 1376  
Db 961 aggactgagcaaccttccgaaagttcacacgagttgtgtcattgggctgtccggggttc 1020  
1377 gctgtatgacctgtctctgtgagcagcgtgtgagagaaactcaatgctgtgagatcatgctgc 1436



```

Db 1021 gctgtaagcctgctctgctgagcagctgtgaggaactcagctgtgagatcatg 1080
QY 1437 ctttcatlcaagagccgacccacgacacgaatgctgttltggaaacctgaacaa 1496
Db 1081 ctttcatlcaagagccgacccacgacacgaatgctgttltggaaacctgaacaa 1140
QY 1497 gctgcagaggaatgagatgctgtcatccccaagtcttcttaactctctgtatct 1556
Db 1141 gctgcagaggaatgagatgctgtcatccccaagtcttcttaactctctgtatct 1200
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QY 1677 cctgtcaggggagatcatcctcctcgtggcagctgtgtactctgtgcgagccag 1736
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Db 1381 gttcatctgagatcgtlcatagacagacttggaaactctctctgtlccagagcc 1440
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QY 1977 tctgatactctagatcttctctctctctctctctctctctctctctctctctct 2036
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QY 2337 cctggaagctgcaagaagcactctctctgtgagatgaggaatgtgtatgtgtgtg 2396
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Db 2101 tgaagcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2160
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QY 2637 gctctcagctcacaactgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2696
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Db 2341 tcttcccaacc 2351

```

## RESULT 9

AAZ07116

ID AAZ07116 standard: cDNA: 2348 BP.

XX AAZ07116;

DT 08-OCT-1999 (first entry)

DE Human vanilloid receptor homologue VANILREP2 polymorphic variant PVP-1.

KW Human; vanilloid receptor homologue; VANILREP2; polymorphic variant;

KW PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;

KW rheumatoid arthritis; neuralgia; algesia; nerve injury; ischemia;

KW neurodegeneration; stroke; incontinence; inflammatory disorder; ss.

OS Homo sapiens.

FH Key Location/Qualifiers

FT CDS 5..2296

FT FT

FT FT

FT FT

PN WO9937765-A1.

PD 29-JUL-1999.

PF 25-JAN-1999; 99WO-EP00420.

PR 20-JAN-1999; 99GB-0001209.

PR 27-JAN-1998; 98EP-0300549.

PR 26-OCT-1998; 98GB-0023421.

PA (SMK ) SMITHKLINE BEECHAM PLC.

PI Davis JB, Duckworth DM, Hayes PD;

DR WPI: 1999-479049/40.

DR P-PSDB: AAY29471.

PT New human vanilloid receptor homologues (VANILREP2)

PS Claim 9; Page 34-35; 47pp; English.

CC The present sequence encodes a human vanilloid receptor homologue

CC VANILREP2 polymorphic variant PVP-1. VANILREP2 can be used to diagnose

CC disease or susceptibility to disease related to expression or activity

CC of VANILREP2 polypeptides. VANILREP2 may be used to treat diseases

CC including pain, (for example chronic, neuropathic, postoperative,

CC rheumatoid arthritis), neuralgia, algesia, nerve injury, ischemia,

CC neurodegeneration, stroke, incontinence, and inflammatory disorders.

XX Sequence 2348 BP; 487 A; 683 C; 673 G; 505 T; 0 other:

Query Match 83.18; Score 2333.4; DB 20; Length 2348;  
Best Local Similarity 99.88; Pred. No. 0;  
Matches 2347; Conservative 0; Mismatches 1; Indels 3; Gaps 1;

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DB 61 agaagatgctctgaagcgagacagagaaagctgatttttgagcgcggtcccat 120  
QY 477 ggaatcacagttccagggcgagagacggaaatttcgcccctcagaataagatcaactcaa 536  
DB 121 ggaatcacagttccagggcgagagacggaaatttcgcccctcagaataagatcaactcaa 180  
QY 537 ctacggaagaggaacaggtgcacgaatccgagatccggaacacgatttgacggaatcggt 596  
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DB 601 gaaaggcgcaagggagctgtcttatttcggtgagctaacccctctcttggcgcttgac 660  
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DB 901 gctggccgcaagagagggcaagatcgaagattttcagagcaacatctctgacggaggatttc 960  
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DB 961 agagctagcaaccttccgaaagttcacaccgagttgtgtcatgagcgctgcccgggtc 1020

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QY 1617 cgccccacacctgaaagcgaggttggaataactcatgtctgtgacgggccaactctat 1676  
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DB 1498 tgtgtctgctgt 1557  
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DB 1618 tctgatactactgattct 1677  
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DB 1678 ggtctggcgcccggaagctctctacagggcccaatgccaacagatcgaatgcaagccatgga 1737  
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DB 2038 gaaagaaagcagggcgaggtgtgtatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2097  
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QY 2637 gctcctccagctcgaactgtatgagcagatgacagcagagagccagagagacagagagga 2696  
DB 2278 gctcctccagctcgaactgtatgagcagatgacagcagagagccagagagacagagagga 2337  
QY 2697 tcttcccaac 2707  
DB 2338 tcttcccaac 2348  
  
RESULT 10  
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ID AAx87478 standard; cDNA; 2736 BP.  
XX  
AC AAx87478;  
XX  
DT 08-OCT-1999 (first entry)  
XX  
DE Rat vanilloid receptor-related polypeptide 1 (VRP-1) cDNA.  
XX  
XX Vanilloid receptor-related polypeptide 1; VRP-1; VR2;  
KW capsaicin receptor; VR1; rat; vanilloid; analgesic; pain;  
KM inflammation; therapy; diagnosis; ss.  
XX  
OS Rattus rattus.  
XX  
FH Key Location/Qualifiers  
FT CDS 330..2615  
FT /tag= a  
XX  
PN MO9937675-A1.  
XX  
PD 29-JUL-1999.  
XX  
PF 22-JAN-1999; 99WO-US01418.  
XX  
PR 22-JAN-1998; 98US-0072151.  
XX  
PA (BEGC ) UNITV CALIFORNIA.  
XX  
PI Brake AJ, Caterina M, Julius DJ;  
XX  
DR MPI: 1999-469113/39.  
DR P-PSDB; AAY06556.  
XX  
PT New isolated capsaicin receptor polypeptide and related nucleic acid  
PT - useful for detecting vanilloid compounds, identifying modulators,  
PT and in diagnosis or treatment of e.g. pain and inflammation  
XX  
XX Claim 8: Page 80-81; 120pp; English.  
XX  
XX This is the nucleotide sequence of cDNA coding for rat vanilloid  
CC receptor-related polypeptide 1 (VRP-1 or VR2). The cDNA was  
CC isolated from a brain cDNA library. VRP-1 (AAY06556) is an example  
CC of a capsaicin receptor-related polypeptide of the invention. It  
CC is not activated by capsaicin or heat, but may interact with the  
CC novel capsaicin receptor VR1 (see AAY06555). The invention provides  
CC vanilloid receptor polypeptides and polynucleotides, including  
CC capsaicin receptor-related polypeptides and polynucleotides, as well  
CC as expression vectors, host cells and transgenic animals. It also  
CC provides a method of using such receptors to identify vanilloid  
CC compounds in natural products or to screen candidate compounds that  
CC modulate capsaicin receptor function for use as analgesics (vanilloid

CC analogues, therapeutic antibodies, antisense oligonucleotides,  
CC capsaicin receptor-encoding polynucleotides for gene therapy),  
CC flavour-enhancing agents, etc. Capsaicin receptor-related  
CC polypeptides and specific antibodies can also be used for the  
CC diagnosis and treatment of human disease and pain. Polynucleotides  
CC can be used as probes to determine the structure, function, location  
CC and expression of capsaicin receptor, receptor subtypes and capsaicin  
CC receptor-related polypeptides in mammals (including humans) and to  
CC investigate associations between disease states or clinical disorders  
CC (particularly those involving acute and chronic pain or inflammation)  
CC and defects or alterations in receptor structure, expression or  
CC function.  
XX  
XX Sequence 2736 BP; 615 A; 780 C; 728 G; 613 T; 0 other;  
SQ  
  
Query Match 55.0%; Score 1544.2; DB 20; Length 2736;  
Best Local Similarity 77.9%; Pred. No. 0;  
Matches 2016; Conservative 0; Mismatches 498; Indels 73; Gaps 10;  
  
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DB 201 ggcgcgcacacactgtgtcagcctgcgaggtccagccagcgcctgcctgcgtat 260  
QY 282 gctggaggaagacagagacccttgacatctcactgcagagagtcctgtgcgcga 341  
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DB 599 ggaactgactgactgctagatatacctgcgtgcagacagcaagtacatccagactctgc 658  
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DB 899 taacctcgagcgtgtgagcgtctcctcacaagaacacagcaagactgttctatttgg 958  
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OY	1824	ttcttcgtccacatcgagtggtgagcttgcctccctgttctgtctgtgctggtgcgttcgtc	1883
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Db	1859	gaacctgtcttaactataataacaggggtctcttcagacacacagatccatactcaagtgtcatgtacca	1918
OY	1944	gaaaggtcaatccctgcgggaacctgtgcgtcttcctctctgatacttaagctctctcttcctgcg	2003
Db	1919	gaaaggtcaatccctgcgggaacctgtgcgtcttcctctctgatacttaagctctctcttcctgcg	1978
OY	2004	cttcgtcgtatgacctgtgtgaagctcttcgtaccaggaaggtcttggcgcctccagaaagctccatacag	2063
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Db	2730	aaaaaaa 2736	

RESULT	12
AAA30256	
ID	AAA30256 standard; cDNA; 1794 BP.

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XX AC AAA30256;
XX DT 05-SEP-2000 (first entry)
XX DE Rat partial VR-2 coding sequence.
XX KW VR-2: rat; vanilloid receptor; nociceptor; pain signalling;
KM hyperalgesia; musculoskeletal disorder; neuropathic pain;
OS gene therapy; ss.
XX Rattus sp.
FH Key .Location/Qualifiers
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ET /tag=a
FT /product= "VR-2"
FT /partial
XX PN MO200029577-AI.
PD 25-MAY-2000.
PE 12-NOV-1999; 99WO-US26701.
PF 13-NOV-1998; 98US-0108322.
PR 28-DEC-1998; 98US-0114076.
PR 26-FEB-1999; 98US-0258633.
PR 19-OCT-1999; 99US-0421134.
XX (MILL-) MILLENNIUM PHARM INC.
PA Curtis RAJ;
PI WPI: 2000-387790/33.
DR P-PsDB; AAV97360.
XX New capsaicin/vanilloid receptor polynucleotides and peptides, used
PT to modulate pain signalling mechanisms -
PS Claim 1, Flg 4; 183pp; English.
CC The present sequence is the coding sequence for the rat
CC Capsaicin/Vanilloid receptor VR-2, which is involved in pain signalling.
CC The sequence was isolated by searching a dorsal root ganglion library for
CC genes encoding novel receptors of the capsaicin/vanilloid family. The
CC human version of this gene is found at chromosome 17p11-12, a region
CC which has been associated with myasthenia gravis, Smith-Wagenis syndrome,
CC CMD5, Cone-roed dystrophy, choroidal dystrophy, central areolar and
CC retinal cone dystrophy, and it is possible that the human protein may be
CC used to treat or diagnose these disorders. In addition, the human gene,
CC protein and its antibodies can be used to diagnose and treat
CC hyperalgesia, inflammation, infection, ischemia, joint pain, tooth pain,
CC headaches, pain associated with surgery or neuropathic pain, possibly via
CC the use of gene therapy.
XX Sequence 1794 BP; 396 A; 499 C; 474 G; 425 T; 0 other:
SQ
Query Match 39.2%; Score 1102.4; DB 21; Length 1794;
Best Local Similarity 78.5%; Pred. NO. 3e-224;
Matches 1409; Conservative 0; Mismatches 351; Indels 36; Gaps 6.
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Dh 198 ggtcttcaacaaatgggggcgcgctctgtgcccaactgtagcagcttgaggaaatcccaacc 257  
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Dh 258 accaagggcctcaaccccttgaaactagccgcgaaggaagaaatccgaatcttccagc 317  
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Dh 1620 cctcag 1679  
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RESULT 13  
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ID AAA30255 standard; cDNA; 1489 BP.  
XX  
AC AAA30255;  
XX  
DT 05-SEP-2000 (first entry)  
XX  
DE Human VR-2 (alternate form) coding sequence.  
XX  
KW VR-2; human; vanilloid receptor; nociceptor; pain signalling;  
KW hyperalgesia; musculoskeletal disorder; neuropathic pain;  
KW chromosome 17p11-12; gene therapy; ss.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
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PN WO200029577-A1.  
XX  
PD 25-MAY-2000.  
XX  
PF 12-NOV-1999; 99MO-US26701.  
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PR 28-DEC-1998; 98US-0114078.  
PR 26-FEB-1999; 99US-0258633.  
PR 19-OCT-1999; 99US-0421134.  
XX  
PA (MILL-) MILLENNIUM PHARM INC.







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RESULT 15
AAK87501
ID AAK87501 standard; DNA: 884 BP.
XX
AC AAK87501:
XX
DT 08-OCT-1999 (first entry)
XX
DE Human vanilloid receptor-related polypeptide 1 (VRP-1) cDNA.
XX
KM Vanilloid receptor-related polypeptide 1; VRP-1; VR2;
KM capsaicin receptor; VR1; human; vanilloid; analgesic; pain;
KM inflammation; therapy; diagnosis; ss.
XX
OS Homo sapiens.
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FH Key Location/Qualifiers
FT CDS 3..764
FT /tag= a
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PN MO937675-A1.
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PF 22-JAN-1999; 99MO-US01418.
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PR 22-JAN-1998; 98US-0072151.
XX
PA (RECC ) UNIV CALIFORNIA.
XX
PI Brake AJ, Caterina M, Julius DJ;
XX
DR WPI; 1999-469113/39.
XX
PT New isolated capsaicin receptor polypeptide and related nucleic acid
PT - useful for detecting vanilloid compounds, identifying modulators,
PT and in diagnosis or treatment of e.g. pain and inflammation
XX
PS Claim 8; Page 90-91; 120pp; English.
XX
CC This is the nucleotide sequence of a human vanilloid receptor-
CC related polypeptide 1 (VRP-1 or VR2) partial cDNA. It codes for
CC the C-terminal region of a claimed VRP-1 polypeptide (see AY06560).
CC VRP-1 is an example of a capsaicin receptor-related polypeptide of
CC the invention. It is not activated by capsaicin or heat, but may
CC interact with the novel capsaicin receptor VR1 (see AY06558). The
CC invention provides capsaicin receptor and capsaicin receptor-
CC related polypeptides and polynucleotides, as well as expression
CC vectors, host cells and transgenic animals. It also provides a
CC method of using such receptors to identify vanilloid compounds in
CC natural products or to screen candidate compounds that modulate
CC capsaicin receptor function for use as analgesics (vanilloid
CC analogues, therapeutic antibodies, antisense oligonucleotides,
CC capsaicin receptor-encoding polynucleotides for gene therapy),
CC flavour-enhancing agents, etc. Capsaicin receptor-related
CC polypeptides and specific antibodies can also be used for the
CC diagnosis and treatment of human disease and pain.
XX
SQ Sequence 884 BP; 182 A; 247 C; 267 G; 181 T; 7 other:

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Query Match 28.0%; Score 787.8; DB 20; Length 884;
Best Local Similarity 91.9%; Pred. No. 9,8e-158;
Matches 876; Conservative 5; Mismatches 2; Indels 70; Gaps 2;

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